CALIFORNIA
HIGH-SPEED RAIL
AUTHORITY

TO: **Chairman Pringle and Authority Members**

FROM: **Mehdi Morshed, Executive Director**
Dan Leavitt, Deputy Director

Date: **October 30, 2009**

RE: **Agenda Item 7 – Request for Expressions of Interest for Maintenance Facilities**

Discussion

The Authority wants to enhance the opportunity of communities and other interested parties along the proposed HST system to express their interest in locating a maintenance facility in their community by identifying potential locations that could meet the Authority's maintenance facility siting requirements, minimize environmental impacts, and offer financial incentives and other economic benefits to the State of California and the community. Authority staff believe that incorporating a publicly noticed Request for Expressions of Interest (RFEI) for identifying potential maintenance sites into the formal environmental review process is the best way to achieve this goal.

Please review the attached public notice regarding the RFEI Identifying Potential Maintenance Facility Sites and Resolution #HSRA10-009. The Alternative Analysis for the Siting Maintenance Facilities memorandum, which is referenced in the RFEI, is also attached for background information.

Recommendation

Authority staff recommend the approval of Resolution #HSRA10-009 directing the Executive Director to post the public notice regarding the Request for Expressions of Interest Identifying Potential Maintenance Facility Sites.

CALIFORNIA HIGH-SPEED RAIL AUTHORITY

Resolution #HSRA10-009
Regarding the issuance of a Request for Expressions of Interest

Whereas, it is desirable for the California High-Speed Rail Authority to issue a Request for Expressions of Interest in order to identify potential sites for the planned California High-Speed Train Maintenance Facilities that meet the criteria described in the RFEI and as established in Technical Memorandum 5.1 and 5.3,

Now, therefore, be it resolved,

Resolved, that the Executive Director is authorized to finalize and execute Requests for Expressions of Interest for the identification of maintenance facilities as described in the attached public notice.

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PUBLIC NOTICE

REQUEST FOR EXPRESSIONS OF INTEREST IDENTIFYING POTENTIAL MAINTENANCE FACILITY SITES

The California High-Speed Rail Authority (Authority) invites interested parties to submit an Expression of Interest (RFEI) identifying potential sites for planned California High-Speed Train Maintenance Facilities that meet the criteria described in this RFEI and as established in Technical Memoranda 5.1 and 5.3, which are both available on the Authority's Website.[1] Expressions of Interest are to be addressed to Mr. Mehdi Morshed, Executive Director, California High-Speed Rail Authority, 925 L Street, Suite 1425, Sacramento, CA 95814 and must be received by the Authority by 2:00 p.m. Pacific Time on Tuesday, December 15, 2009. Questions regarding this RFEI should be addressed to Mr. John Harrison, Deputy Program Director, 925 L Street, Suite 1425, Sacramento, CA 95814 (916) 384-1469.

Objective
The Authority wants to enhance the opportunity of communities and other interested parties along the proposed HST system route to express their interest in locating a maintenance facility in their community by identifying potential locations that could meet the Authority's maintenance facility siting requirements, minimize environmental impacts, and offer financial incentives and other economic benefits to the State of California and the community.

Request for Expressions of Interest
As part of the Alternative Analysis for Siting Maintenance Facilities[2] in support of the project level environmental review (EIR/EIS) process, the Authority is soliciting Expressions of Interest through this Public Notice for each of the following three types of HSR Maintenance Facilities. (Expressions of Interest should contain the information requested in Table 1 below.)

1. A Heavy Maintenance Facility to be located in the Central Valley along the proposed HSR route between Merced and Bakersfield. The preferred site characteristics include: a large site (of approximately 154 acres inclusive of roadways and parking), located close to (preferably within 0.5 miles from and suitable for being connected directly to) the mainline trunk of the HST System, with connectivity to the highway road network and access to utilities including water, gas, electricity, sewer, and communications. The HMF building footprint would encompass 14.5 to 19.3 acres (or 631,000 to 840,000 sq. ft.). Up to 1,500 HMF employees would be needed during peak shifts. For further guidance, maps of alternative mainline routes currently under consideration and review by the Authority between Merced and Bakersfield are available on the Authority's Website.

2. Terminal Maintenance and Yard Storage Facilities to be sited close to the terminal stations at San Francisco, and Los Angeles/Anaheim for Phase I, with Sacramento, and San Diego added later during Full System Build-Out. These Facilities, serving layup/train storage functions for morning start-up of revenue services, should be located as close as possible (preferably within 1.5 to 3 miles) to the terminal stations that they serve and have effective connectivity to major roadways. Sites must also have access to utilities including sewer, water, gas, electricity, and communications. Acreage and other site criteria are described in the Authority's aforementioned Maintenance Facility Guidelines. A summary of the spatial requirements, inclusive of roadways and parking, is as follows[3]:

Train Storage Yard and Maintenance Facility	***Estimated Acreage***
San Francisco Train Storage Yard and Maintenance Facility	90 – 108 acres
Los Angeles Train Storage Yard and Maintenance Facility	70 – 83 acres
Anaheim Train Storage Yard and Maintenance Facility	63 – 74 acres

Alternative: Combined LA / Anaheim TSMF	88 – 105 acres
Sacramento Train Storage Yard and Maintenance Facility	65 – 76 acres
San Diego Train Storage Yard and Maintenance Facility	79 – 93 acres

3. Maintenance-of-way (MOW) Facilities to be sited along the HST route in close proximity to Gilroy, Merced, Visalia, Bakersfield and Palmdale for Phase I, with Stockton, City of Industry, and Temecula added later during the Full System Build-Out. The sites for MOW Facilities must be located immediately adjacent to the mainline trunk of the HST System. The size of these facilities would require a land parcel "footprint" of between approximately 24 and 26 acres each, inclusive of roadways and parking. The sites must have effective connectivity to the highway road network and access to utilities including water, gas, electricity, sewer, and communications.

Maintenance facility sites identified through this RFEI will be reviewed by the Authority and those meeting the Authority's criteria may be included for further analysis in the Alternatives Analysis phase of the environmental review process. The process will also include sites being carried through the Draft and Final EIR/EIS with the preferred sites identified, with concurrence from the Federal Railroad Administration, in the Notice of Determination/Record of Decision.

Table 1
Required Information to be contained in an Expression of Interest to evaluate whether a Proposed Site meets the Authority's Maintenance Facility Site Criteria

1. Site description, including location, distance from High-Speed Train mainline, highway access, availability of site utilities, consistency with local zoning and other planning efforts and adopted plans.
2. Availability of local labor force to support employment needs and economic benefits to cities and local communities.
3. Constructability, access for construction within existing transportation right of way. Disruption to and relocation of existing infrastructure, including utilities.
4. Displacements: Number of properties by land use type that would be displaced, and/or acres of land by land use type. Number of residential and commercial properties impacted or displaced. Acres of farmland displaced.
5. Traffic effects: Identify locations where increases in traffic congestion or Level of Service are expected to occur.
6. Environmental: Identify any known underground storage tanks and/or hazardous materials on the site that would require remediation. Proposed sites must avoid wetlands.
7. Economic incentives (if any) the local community might be willing to offer the Authority to locate a maintenance facility on a proposed site.

[1] Technical Memorandum 5.1 entitled "Terminal and Heavy Maintenance Facility Guidelines," August 2009 and Technical Memorandum 5.3 entitled "Summary Description of Requirements and Guidelines for Heavy Maintenance Facility (HMF), Terminal Layup/Storage and Maintenance Facilities and Right-of-Way Maintenance Facilities," August 2009. Both technical memoranda are available on the Authority's Website: www.cahighspeedrail.ca.gov/Library/Project-LevelandEnvironmentalGuidelines.

[2] See "Alternative Analysis for Siting Maintenance Facilities," October 2009. [Also available on the Authority's Website in the same location.]

[3] Some of the ranges shown have been adjusted from the figures published in TM 5.3.

California High-Speed Train Project

TECHNICAL MEMORANDUM

Alternatives Analysis for Siting Maintenance Facilities

Prepared By: Steven Wolf — 10/21/09

Checked By: Bryan Porter — 10/28/09

Approved By: Steven Wolf, Environmental Manager — 10/28/09

Released By: Anthony Daniels, Program Director — 10/28/09

Reviewed By: Dan Leavitt, Deputy Director, CHSRA — 10/29/09

Revision	Date	Description
0	31 August 09	Initial Release
1	07 September 09	FRA Review
2	30 September 09	PMT Revisions
3	14 October 09	PMT Revisions
4	26 October 09	Authority Revisions

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1.0 PURPOSE

This memorandum serves as a guide to the regional teams in conducting an Alternatives Analysis (AA) for the siting of maintenance facilities for the California High-Speed Train (HST) project sections of the HST system. The HST System will require the following types of maintenance facilities:

- Terminal and Heavy Vehicle Maintenance Facility (HMF)
- Terminal Layup/Storage & Maintenance Facilities (TSMF)
- Right-of-Way Maintenance Facilities (MOWF)

The siting requirements for these different facilities are summarized in Section 2.0 of this memorandum and presented in detail in Technical Memoranda TM 5.1, Terminal and Heavy Maintenance Facility Guidelines, dated August 25, 2009, TM 5.3, Summary Description of Requirements and Guidelines for Heavy Maintenance Facility, Terminal Layup/Storage and Maintenance Facilities, and Right-of-Way Maintenance Facilities, dated August 25, 2009. TM 5.3 is included in this document as Appendix A.

The AA will identify feasible and practicable alternative maintenance facility sites to carry forward for environmental review and evaluation in Environmental Impact Reports/Environmental Impact Statements (EIR/EIS) for sections of the California HST Project (CHSTP). In conducting the AA the regional teams will begin analysis using the guidance provided in TM 5.1 and TM 5.3 and with consideration of the alternatives selected with the previously prepared statewide and Bay Area program EIRs/EISs. Plans and representative sections will be developed and used for the preliminary evaluation of alternatives maintenance sites. The AA evaluations will be used to assist the California High-Speed Rail Authority (Authority) and the Federal Railroad Administration (FRA) in identifying a reasonable range of feasible alternative maintenance facility sites to analyze in the draft project EIR/EIS. The guidelines contained in this memorandum are designed to maintain consistency among the regional teams in identifying an appropriate range of alternative maintenance facility sites to analyze in each EIR/EIS, conducting a preliminary analysis, applying evaluation measures, and documenting the evaluation process, while still allowing flexibility to account for consideration of regional differences.

The Authority and the FRA will make the results of the AA available for agency and public input. The AA will support decisions guiding the project design and environmental review process, including specifically the identification of alternative maintenance sites to be further considered in the project environmental analysis and reasons to dismiss alternatives that will not be carried forward in the EIR/EIS analysis. The Authority and the FRA will make these decisions considering agency and public input. The results of the alternatives analysis for siting of maintenance facilities will be presented in a report providing the basis for drafting the Alternatives chapter in the Draft and Final Project EIR/EIS.

The AA for the siting of maintenance facilities presented in this memorandum will follow the same process and approach presented in the Technical Memorandum Alternatives Analysis Methods for Project EIR/EIS Version 2, dated September 2009.

The maintenance site alternatives identified in the Final AA as practicable and feasible will be added to the Draft Project Description incorporating a description of the alternatives to be carried forward for environmental review. The Draft Project Description will describe all design features and assumptions for the maintenance facilities to support environmental evaluation and will be updated and finalized when a level of 15% preliminary engineering design is completed.

2.0 HST Maintenance Requirements

Based on a service design driven by the CHSTP ridership demand forecast, the Authority developed an operating plan to define train schedules and estimate the number of train-sets needed for the CHSTP rolling stock fleet. In order to support the commissioning activities, layup/storage and maintenance program requirements, and ultimate retirement for the vehicle fleet, concepts were developed for the daily Terminal Layup/Storage and Maintenance Facilities (TSMF) and a Heavy Maintenance Facility (HMF)

with the requisite tracks and shop buildings. In addition, right-of-way maintenance requirements were examined, and a description of a "typical" Maintenance of Way Facility (MOWF) configuration was developed and recommendations for approximate locations along the high speed train system alignment were identified.

Preliminary guidelines and criteria applicable to the design of the TSMF, HMF, and MOWF have been prepared. The size and configuration of these facilities were estimated based on defining the capabilities and functional requirements necessary to support the activities critical to efficiently maintaining and safely operating the CHSTP rolling stock fleet and physical plant. These capabilities and requirements were largely derived from a review of best practices and programs used on similar HST systems around the world, including France, Korea and Japan. Based on a conceptual design of these facilities as shown in the concept plans included in Appendix A, the following range of land parcel footprints, inclusive of buildings, outdoor service areas, storage, roadways and parking, would be required for the following HMF and TSM facilities:

- Merced to Bakersfield Heavy Maintenance Facility (Concept Plan TM 5.1A) - 154 Acres
- Los Angeles Storage Yard and Maintenance Facility (Concept Plan TM 5.1B) - 62 to 83 Acres
- San Francisco Storage Yard and Maintenance Facility (Concept Plan TM 5.1C) - 90 to 108 Acres
- Anaheim Storage Yard and Maintenance Facility (Concept Plan TM 5.1D) - 52 to 74 Acres
- Sacramento Storage Yard and Maintenance Facility (Concept Plan TM 5.1E) - 54 to 76 Acres
- San Diego Storage Yard and Maintenance Facility (Concept Plan TM 5.1F) - 70 to 93 Acres
- Los Angeles / Anaheim (combined TSMF) Storage Yard and Maintenance Facility (Concept Plan TM 5.1G) - 88 to 105 Acres

The locations that support an effective Maintenance-of-Way program strategy are proposed to be within close proximity to Gilroy, Merced, Bakersfield, and Palmdale for Phase I, with Stockton, City of Industry and Temecula added later for the Full System Build-Out. The selection of right-of-way maintenance facilities will be based on servicing a track distance of 75 miles in each direction from the maintenance site for a total coverage of 150 miles. This is to accommodate the time for equipment traveling at 60 mph to reach locations along the alignment needing maintenance during a five hour non-revenue period.

The site for each MOWF must be located immediately adjacent to the main line trunk of the HST System and be connected to the main line with a standard turnout. Also required is effective connectivity to the highway road network and access to utilities including water, gas, electricity, sewer, and communications.

Based on a conceptual rendering of a typical MOWF as shown in Appendix A, Alternative A (wide configuration) TM 5.2-A and Alternative B (narrow configuration) TM 5.2-B the size of these facilities would require a land parcel "footprint" of between approximately 24 to 26 acres each, inclusive of roadways and parking. Adequate space will be required to "park" on-track right-of-way maintenance equipment, store maintenance of way material inventory and replacement parts, and support a "headquarters" and staging area for HST System "sub-division" maintenance personnel.

3.0 APPROACH

The AA will document the initial process of defining and evaluating alternative sites for maintenance facilities for sections of the HST system. Preliminary alternative sites will be identified after concurrence on the project alignments and station locations to be carried forward into the environmental process has been completed.

The process will include the following steps:

Step 1: Initial Identification of Alternative Maintenance Sites
Using the guidance from TM 5.1 and TM 5.3 and the selected program-level maintenance facility locations, information collected during scoping, and the analysis of the alternative alignments, develop site-specific alternative sites considering current conditions and constraints.

Make a presentation to the Program Management Team (PMT)/Authority/FRA on the initial alternative sites selected for further consideration through the AA process based on:

a) The Program EIR/EIS selected alternative sites;

b) Public and agency input received during and after scoping; and

c) Further analysis of the study area to identify alternative sites that are practicable and feasible.

The results of the presentation and review comments received will be documented in a Draft section of the AA Report entitled *Initial Identification of Alternative Sites.*

Step 2: Early Outreach to Agencies and Public
The initial alternative sites identified for further consideration will be presented informally to the local and state participating, responsible and trustee agencies and the federal participating and cooperating agencies identified in the CAHST Agency Coordination Plan and have agreed to be part of the HST Project environmental process. Non-governmental agencies such as operating railroads will also be included as part of the outreach. The initial alternative sites will also be presented to Native American tribes and minority and/or low income interest groups as part of the outreach implementation for HST Projects presented in Technical Memo *Agency, Environmental Justice, and Tribal Coordination Guidelines for Project Level EIR/EIS* dated July 31, 2009.

Following the presentation to the agencies and non government agencies, a similar effort will be conducted for the public. Public information meetings will be conducted, as needed, to present the initial alternative sites identified for further consideration.

Step 3: Requests for Expressions of Interest (RFEI)
To provide the opportunity for communities along the proposed HST system route to express their interest in locating a maintenance facility in their area the Authority will solicit Expressions of Interest for each of the three types of Maintenance Facilities. The RFEI will be issued as a public notice requesting the community and/or interested parties to identify potential locations that could meet the Authority's maintenance facility siting requirements (Section 2.0), minimize environmental impacts, and offer financial incentives and other economic benefits to the State of California and the community.

Step 4: Revise Initial Identification of Alternatives AA Report Section
Based on information and feedback received from early outreach and the RFEI public notice, the Draft section of the AA Report, *Initial Identification of Alternative Sites,* will be revised and resubmitted to the PMT/Authority/FRA for review.

Step 5: Conduct Project Alternatives Staff Workshop
A workshop will be conducted by the Regional Consultants with the PMT/Authority/FRA to present the details and information regarding all alternative sites studied to date. This will include discussion of severe design constraints or conflicts, and environmental impacts and benefits for each site. The purpose of the workshop is to obtain direction from the Authority and FRA on the site analysis, evaluation results and conclusions, and material to present in the AA Report.

Steve 6: Prepare Alternatives Analysis (AA) Draft Report

An AA Draft Report will be prepared that presents the results of the AA process to this point. The AA Draft Report will include a preliminary definition of the alternative maintenance sites using the applicable Technical Memoranda TM 5.1 and TM 5.3.

Step 7: Initiate PMT/Authority/FRA/AG Review
The AA Draft Report will be reviewed by the PMT/Authority/FRA. When approved for release, the AA Draft Report will be posted to the Authority's website.

Step 8: Make Presentation to CAHSRA Board
The results of the AA Draft Report will be presented to the Board as an information agenda item.

Step 9: Conduct Outreach to Agencies and Public
The alternative maintenance sites identified for inclusion in the EIR/EIS will be presented to the local and state participating, responsible, and trustee agencies and the federal participating and cooperating agencies identified in the CAHST Agency Coordination Plan and have agreed to participate in the HST Project environmental process. Non-governmental agencies such as operating railroads will also be included as part of the outreach. The alternatives identified for inclusion in the EIR/EIS will also be presented to Native American tribes and minority and/or low income interest groups as part of the outreach implementation for HST Projects presented in Technical Memo *Agency, Environmental Justice, and Tribal Coordination Guidelines for Project Level EIR/EIS* dated July 31, 2009.

Following the presentation to the agencies and non government agencies, a similar effort will be conducted for the public. Public information meetings will be conducted, as needed, to present the alternatives identified for inclusion in the EIR/EIS.

Step 10: Prepare Alternatives Analysis (AA) Final Report
An AA Draft Report will be finalized and will include the results of outreach meetings and consultation with cooperating and other agencies. The AA Final Report will be reviewed by the PMT/Authority/FRA and upon completion posted to the Authority's website when approved for release.

Step 11: Draft Project Description
The results of the AA Final Report and the level of engineering design completed to date will be included in the draft Project Description.

3.1 COORDINATION

Each Regional Team will coordinate their efforts with the PMT, Authority, and FRA. Coordination will also occur with other Regional Teams, as needed, for similar technical work occurring with immediately adjacent sections of the proposed HST system.

Preliminary information including the initial alternative sites and evaluation shall be presented to the PMT, Authority, and FRA using diagrams, drawings, memoranda, and presentations that effectively communicate the information while minimizing preparation time and effort. The AA reports will be initially reviewed by the PMT, revised, and submitted to the Authority and FRA for their review and comment. In addition, each AA Report will contain a discussion of the coordination and consultation efforts related to alternatives analysis and opportunities for agency and public input in the process.

4.0 EVALUATION MEASURES

4.1 COMPARISON OF ALTERNATIVE SITES

Measures to evaluate and compare the alternative maintenance sites are described below. Where it is possible to quantify the effects, estimates are to be provided, and where it is not possible to quantify effects, qualitative evaluation should be provided.

A. Land use consistent with existing, adopted local, regional, and state plans, and is supported by existing or future growth areas as measured by:

Measurement	Method	Source
Economic benefits to cities and local communities	Quantitative to the extent possible using available data, addressing both direct and indirect benefits, (e.g., jobs creation with corresponding revenues due to purchases of local goods and services, etc.)	Input from local economic and redevelopment agencies and chambers of commerce.
Consistency with local zoning and other planning efforts and adopted plans	Qualitative – General analysis of applicable planning and policy documents	Land use analysis and input from planning agencies
Availability of local labor force to support employment needs	Quantitative to the extent possible using available data	Current unemployment data; regional employment growth projections; and input from local agencies, chambers of commerce, and local labor unions

B. Construction of the alternative is feasible in terms of engineering challenges and right-of-way constraints as measured by:

Measurement	Method	Source
Capital and operating costs	Availability of potential locations offered to the Authority that could meet the Authority's maintenance facility siting requirements	Requests for Expressions of Interest for Maintenance Facilities issued as a public notice requesting the community and/or interested parties to identify potential locations that could meet the Authority's maintenance facility siting requirements.
Constructability, access for construction; within existing transportation ROW	Extent of feasible access to alignment for construction	Conceptual design plans and maps
Disruption to and relocation of utilities	Number of utilities affected	Conceptual design plans and maps

C. Minimize disruption to neighborhoods and communities – extent to which an alternative minimizes right-of-way acquisitions, minimizes dividing an established community and minimizes conflicts with community resources as measured by:

Measurement	Method	Source
Displacements	If possible, number of properties by land use type that would be displaced. Or acres of land within the right-of-way/station footprint, by type of land use: single family, multifamily, retail/commercial, industrial, etc.	Identified comparing the alignment conceptual design drawings with aerial photographs, zoning maps, and General Plan maps.
Local Traffic Effects	Identify potential locations where increase in traffic congestion or LOS are expected to occur.	Existing traffic LOS from local jurisdictions

D. Minimize impacts to environmental resources – extent to which an alternative minimizes impacts on natural resources as measured by:

Measurement	Method	Source
Waterways and wetlands and nature preserves or biologically sensitive habitat areas affected	Identify the presence and an estimate of acres of wetlands and species of T&E habitat affected; acres of natural areas/critical habitat affected	Measured off conceptual design plans and GIS layers; Section 404(b)1 analysis
Cultural resources	Identify locations of NRHP or CHRIS listed properties. For archaeological resources identify areas of high or moderate sensitivity based on previous studies conducted in the study area.	Based on conceptual design plans and GIS layers; Section 4(f) studies and cultural resource records search and surveys
Agricultural lands	Acres of prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance to be displaced	Based on conceptual design plans and GIS layers

E. Extent to which an alternative minimizes impacts on the natural environment as measured by:

Measurement	Method	Source
Noise/Vibration effects on sensitive receivers	Identify types of land use activities that would be affected by maintenance activities	Results of screening level assessment: inventory of potential receivers from site survey and aerial maps
Maximize avoidance of areas with potential hazardous materials	Hazardous materials/waste constraints	Data from previous records search conducted for other projects within study area.

APPENDIX A

Technical Memoranda 5.3, Summary Description of Requirements and Guidelines for Heavy Maintenance Facility, Terminal Layup/Storage and Maintenance Facilities, and Right-of-Way Maintenance Facilities